Reasons for Implementing Public Private Partnership Projects – Perspectives from Hong Kong, Australian and British Practitioners

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Abstract

Purpose

This paper presents the findings of a study to investigate the reasons for implementing Public Private Partnership (PPP) projects.

Design/methodology/approach

A questionnaire survey was conducted in Hong Kong (also commonly referred to as the Hong Kong Special Administrative Region), Australia and the United Kingdom. The survey respondents were asked to rate the importance of nine identified reasons for implementing PPP projects.

Findings

The findings of the top three ranks for each respondent group were investigated. Ranked top by the survey respondents in Hong Kong was 'Private incentive'. Ranked second by all three groups of survey respondents was 'Economic development pressure demanding more facilities'. Third in Hong Kong and first in Australia was 'High quality of service required'. The reason 'Inefficiency because of public monopoly and lack of competition' was ranked third by the Australian respondents. And finally ranked first and third by the British respondents was 'Shortage of government funding' and 'Avoid public investment restriction'. The rankings showed that in general those rated highly in the United

Kingdom focused on financial elements whereas those rated highly in Hong Kong and Australia were more related to the overall performance of improving public projects.

Originality/value

These findings were believed to provide an idea of the possible reasons for implementing PPP projects, and as a result illustrate a clearer understanding of the process.

Keywords: Comparative study, Public Private Partnership (PPP), Procurement, Reasons.

1. Introduction

Public Private Partnerships (PPP) are defined by the Efficiency Unit of the Hong Kong Special Administrative Region Government as:

'Arrangements where the public and private sectors both bring their complementary skills to a project, with varying levels of involvement and responsibility, for the purpose of providing public services or projects.' (Efficiency Unit, 2006)

So why are governments across the world favouring the approach of PPP to provide for their public services and facilities? The very first PPP projects that opted for this approach were simply to bring in private investment for public services and facilities (Grimsey and Lewis, 2004). These services and facilities were often essential for the public and involved huge amount of capital investment. If all these services and facilities were solely financed by the government, it would impose tremendous pressure on the

government's financial status. Therefore it would be ideal if the public could get what they want without requiring the government to pay out of the taxpayers' money, and at the same time creating business opportunities for the private sector.

But as PPP has developed over the years the perceived advantages have become more obvious and the reasons for adopting this approach have gone beyond relieving the public sector's financial burden. Walker et al. (1995) suggested three main reasons for using the PPP approach:

- In general, the private sector possesses better mobility than the public sector. For example, the private sector is not only able to save the costs of project in planning, design, construction and operation, but also avoid the bureaucracy and to relieve the administrative burden.
- The private sector can provide better service to the public sector and establish a good public private partnership so that balance risk-return structure can be maintained.
- The government lacks the ability of raising massive funds for the large-scale infrastructure projects, but private participation can mitigate the government's financial burden.

In addition, Walker et al. (1995) supported that BOT, which is one mode of PPP, provides a win-win solution and a number of benefits to the public/government are recognized:

- Relief of financial burden;

- Relief of administrative burden;
- Reduction in (inefficient) bureaucracy;
- Better services to the public;
- Encouragement of growth;
- Government can better focus and fund social issues such as health, education, pensions and arts.

Ghobadian et al. (2004) offered two additional reasons for more extensive use of PPP projects. Firstly, the private sector will get to know the needs of the public sector client over time. Secondly, the private sector has more to offer than the public sector in terms of skills, technology and knowledge therefore providing better quality facilities. Although their observations may not be universally true, they reflect the general perceptions.

2. PPP global experience

2.1 PPP experience in Hong Kong

Hong Kong is not completely new to the idea of PPP. In actual fact the city was probably one of the first to utilize resources from the private sector. The term PPP may sound revolutionary to Hong Kong, whereas a more familiar term is Build Operate Transfer (BOT). The concept of BOT has been used since the late sixties. In September 1969 the construction for the first BOT project in Hong Kong commenced (Mak and Mo, 2005).

The Cross Harbour Tunnel (CHT) is a two lane tunnel in each direction. It took only 36 months to complete and was eleven months ahead of schedule. The CHT was an instant success when it came into operation in August 1972. Within three and a half years of operation the Tunnel had collected enough tolls to pay back its construction cost. The Tunnel is probably the most successful BOT project in Hong Kong, and is still one of the most important and profitable pieces of infrastructure locally.

Although Hong Kong has had experience in adopting quite a number of BOT projects, the approach of PPP has never really been studied extensively in the local context. The traditional practice of these projects was for the government to directly award a concession to the potential bidder. This practice of awarding concessions is common in Hong Kong, but the gestation period spent in formulating the enabling legislation is lengthy (Zhang, 2001).

In recent years the Efficiency Unit of the Hong Kong Special Administrative Region Government has been heavily involved in PPP research. The Government's interest in utilizing PPP is obvious. The approaches that they have taken mainly involve gaining international experience from particularly Europe and Australia. One of the early documents produced by the Efficiency Unit on private sector involvement was a guideline to help governmental bureaus and departments to familiarize with private sector engagement (Efficiency Unit, 2001). These guidelines were published in 2001 and showed the government's interest in adopting the idea of PPP. Only two years later they also produced a comprehensive introductory guide to PPP (Efficiency Unit, 2003). This

guide was aimed for the use of the civil service but is also made available for the public's interest to understand the government's approach. After the publication of this report much interest was drawn from the public due to the possibility of the increased business opportunities available. More recently, the Efficiency Unit published two more guidelines on PPP (Efficiency Unit, 2007; 2008). The first of these publications shows how more knowledge on the issues of PPP have been learnt, it also identifies areas of concern to local practitioners as well as civil servants, and it tries to provide some insights into these areas. The second publication is much more specific on how to establish a PPP project. The guideline is aimed at coaching civil servants on how to conduct a PPP project by looking at the business case, dealing with the private sector, managing the risks, funding and payment issues, managing performance etc.

2.2 PPP experience in Australia

The practice for delivering public works projects across Australia is quite different depending on the state. Each state government will have its own set of guidelines and rules to go by. Political decisions are crucial in deciding procurement processes. PPP has been an increasingly popular choice for delivering public works projects in Australia. Although for decades there have been known to be public works projects delivered in Australia by similar partnership arrangements, it has only been since the early nineties that PPP was first properly introduced in Australia. PPP has been a growing alternative to procuring public projects across the world. Especially with the success seen from the Victoria state, the other Australian states are eager to get a taste (Ernst and Young, 2006).

The Victoria government released the Partnerships Victoria policy in June 2000 providing a framework for developing contractual partnerships between the public and the private sector for public infrastructure and services (Department of Treasury and Finance, 2000). This bought about the change to the traditional practice of using Build Own Operate (BOO) and Build Own Operate Transfer (BOOT). The traditional practice focused more on bringing in the private sector's financial input and also having the risk transferred from the public sector to the private sector. But since the Partnerships Victoria policy the focus moved more towards delivering better projects as a result of bringing in the private sector expertise and also the government would regain direct control over the service or facility after the concession period.

The Partnerships Victoria team is part of the Commercial Division in the Department of Treasury and Finance of the Victoria state. The team is mainly responsible for overseeing projects implemented via the PPP practice and also developing guidelines and policies for PPP projects. Up to present, seventeen projects have already been implemented under Partnerships Victoria totaling AUD$5.5 billion (Partnerships Victoria, 2008). The team has also produced four policies, four guidelines, three technical notes and four advisory notes for the implementation of PPP projects in Victoria. These publications are targeted for the use of both the private and public sectors, and cover areas including the public sector comparator, risk allocation, standard commercial principles, tender process, interest rates etc. (Partnerships Victoria, 2008).

2.3 PPP experience in the United Kingdom

PPP was first introduced in the United Kingdom in 1992, in the form of Private Finance Initiative (PFI) as a way of procuring public infrastructure by getting the private sector to finance, build and operate it under contracts typically lasting 25 to 30 years (Tieman, 2003). Since its introduction, PPP/PFI has been the government's preferred method of public infrastructure procurement (Handley-Schachler and Gao, 2003). As a result PPP/PFI now accounts for between 10 to 14 per cent of Britain's total annual investment in public services. Up to 2006, 794 PPP/PFI deals had already been signed. The combined capital value was approximately £55 billion (National Audit Office, 2008). Amongst these projects almost 70% were in the health sector, and over 40% costing below £10 million (Akintoye, 2007). However, Maltby (2003) asserted that PPP/PFI should be abolished for smaller projects and for information technology schemes.

Similar to Partnerships Victoria, the British have Partnerships UK which was setup in 2000 to succeed the Treasury Taskforce. The Taskforce was set up in 1997 to oversee the implementation of PPP/PFI projects. One similarity which can be observed between Partnerships Victoria and Partnerships UK is that both were initiated by the local Treasury. The team is generally responsible for providing project advice and support, developing government policies, providing co-sponsorship and participating in investment of PPP/PFI projects. Due to the longer history of PPP/PFI projects in the United Kingdom, Partnerships UK has a much more comprehensive collection of guidelines and policies on implementing PPP projects for all sectors in many aspects.

Case study reports can also be found on the public domain. Amongst the projects conducted by Partnerships UK it was noticed that the majority included projects for schools, hospitals and transportation. Other projects which have also been conducted include environment ones, leisure facilities, prisons and detention centers, housing etc. (Partnerships UK, 2008).

3. Research methodology

3.1 Questionnaire template

The practitioners' views on reasons for implementing PPP projects were solicited by way of a questionnaire survey. The questionnaire template designed by Li (2003) was adopted for this study. Although the authors could have developed their own research questionnaire, there were several advantages foreseeable to adopt Li's (2003) survey questionnaire rather than designing a new template. Firstly, the value of Li's (2003) questionnaire has already been recognized by the industry at large. His publications as a result of the research findings derived from the questionnaire are evidence of its worthiness. Secondly, there would be no added advantage to reinvent the work that has previously been done by other researchers. And thirdly by administering Li's (2003) questionnaire in different administrative systems, it would be of interest for comparison purposes in the future. Therefore Li's (2003) questionnaire in which nine major reasons for implementing PPP were consolidated was adopted in this survey with prior permission obtained from the author Dr. Bing Li and his doctoral research supervisor,

Prof. Akintola Akintoye who is currently the Head of the School of Built and Natural Environment, University of Central Lancashire, United Kingdom.

3.2 Collection of research data

An empirical questionnaire survey was undertaken in Hong Kong and Australia from October 2007 to December 2007 to analyze the reasons for implementing PPP projects. In this study, the target survey respondents of the questionnaire included all industrial practitioners from the public, private and other sectors. These respondents were requested to rate their degree of agreement against each of the identified reasons for implementing PPP projects according to a five-point Likert scale (1 = Least Important and 5 = Most Important).

Target respondents were selected based on their direct hands-on involvement with PPP projects. Survey questionnaires were sent to 95 target respondents in Hong Kong and 80 target respondents in Australia. It was anticipated that some of these target respondents would have colleagues and personal connections knowledgeable in the area of PPP to participate in this research study as well; hence some of the respondents were dispatched five blank copies of the survey form. A total of 34 completed questionnaires from Hong Kong and 11 from Australia were returned representing response rates of 36% and 9%, respectively. The lower response rate achieved in Australia was expected as the questionnaire was administered from Hong Kong, hence geographical complications were perceived. It must be noted that the number of responses in Table 1 may not always

be 34 for Hong Kong and 11 for Australia, as these respondents may not have ranked all the reasons for implementing PPP projects. Also, Table 2 shows that only 31 and 11 responses in Hong Kong and Australia respectively were suitable for subsequent statistical analyses.

The questionnaire respondents comprised experienced practitioners from the industry. As shown in Figures 1 and 2 approximately half of the respondents in Hong Kong and Australia possessed twenty-one years or above of industrial experience. Figures 3 and 4 show the breakdown of questionnaire respondents who have been involved with PPP projects. Given the few BOT/PPP projects conducted in Hong Kong, it was a surprise to find that approximately 40% of the respondents gained previous experience. Without doubt some of these may have had experience with local BOT projects or PPP projects overseas, but still the experience of these respondents confirmed the quality of the responses from the survey conducted. In addition, amongst those respondents who have acquired experience with PPP projects, 10% had previously been involved with at least five projects. In Australia, many more PPP projects have been conducted so it was unsurprising to find that approximately 90% of the respondents have participated in PPP projects before, with two thirds of these respondents having participated with at least five PPP projects. Once again this reassures the value and reliability of the findings.

Insert FIGURE 1 here.

Insert FIGURE 2 here.

Insert FIGURE 3 here.

Insert FIGURE 4 here.

3.3 Tools for data analysis

1. Mean score ranking technique

Chan and Kumaraswamy (1996) adopted the 'mean score' method to establish the relative importance of causes of delay in building construction projects in Hong Kong as suggested by the clients, consultants and contractors. The data collected from the current questionnaire survey was also analyzed using the same technique, within various groups being categorized according to the origins of the respondents (i.e. Hong Kong and Australia). The five-point Likert scale (1 = Least Important and 5 = Most Important) as described previously was used to calculate the mean score for each reason for implementing PPP projects, which was then used to determine its relative ranking in descending order of importance. These rankings made it possible to triangulate the relative importance of the reasons for implementing PPP projects to the respondents from Hong Kong, Australia and the United Kingdom as presented in Li's (2003) survey 2003. The mean score (MS) for each reason for implementing PPP projects was computed by the following formula:

$$MS = \frac{\sum (f \times s)}{N}, (1 \le MS \le 5) \quad (1)$$

Where s = Score given to each reason for implementing PPP projects by the respondents, ranging from 1 to 5 (1 = Least Important and 5 = Most Important);

f = Frequency of each rating (1-5) for each reason for implementing PPP projects; and

N = Total number of responses concerning that reason for implementing PPP projects.

2. Kendall's concordance analysis

The survey respondents in this study were based on two groups: Hong Kong and Australia. Kendall's concordance analysis was conducted to measure the agreement of different respondents on their rankings of reasons for implementing PPP projects based on mean values within a particular group. If the Kendall's coefficient of concordance (W) is significant at a pre-defined allowable significance level of, say 0.05, a reasonable degree of consensus amongst the respondents within the group on the rankings of reasons for implementing PPP projects was indicated. The W for the reasons for implementing PPP projects was calculated by the following formula (Siegel and Castellan, 1988):

$$W = \frac{\sum_{i=1}^{n} \left(\overline{R}_i - \overline{R}\right)^2}{n(n^2 - 1)/12} \quad (2)$$

Where n = Number of reasons for implementing PPP projects being ranked;

$\overline{R}_i$ = Average of the ranks assigned to the ith reason for implementing PPP projects; and

$\overline{R}$ = The average of the ranks assigned across all reasons for implementing PPP projects.

According to Siegel and Castellan (1988), W is only suitable when the number of attributes is less than or equal to 7. If the number of attributes is greater than 7, chi-square is used as a near approximation instead. The critical value of chi-square is obtained by referring to the table of critical values of chi-square distribution, which can be found in Siegel and Castellan (1988).

4. Discussion of survey results

The reasons for implementing PPP projects were assessed from different perspectives of the Hong Kong, Australia and the United Kingdom (results obtained by Li (2003) from his survey) respondent groups. The means for each administrative system were calculated and ranked in descending order of importance as shown in Table 1.

Insert TABLE 1 here.

4.1 Agreement of the survey respondents

As shown in Table 2, the Kendall's coefficient of concordance (W) for the rankings of reasons for implementing PPP projects was 0.076 and 0.239 for Hong Kong and Australia respectively. The computed W's for both were significant with $p = 0.000$. As the number of attributes considered were above seven, as mentioned previously the Chi-square value would be referred to rather than the W value. According to the degree of freedom, the critical value of Chi-square was 15.510 for both groups (Hong Kong and Australia) the computed Chi-square values were all above the critical value of Chi-square (18.943 and 21.042 respectively). Therefore the assessment by the respondents within each group on their rankings of reasons for implementing PPP projects is proved to be consistent. This finding ensures that the completed questionnaires were valid for further analysis.

Insert TABLE 2 here.

4.2 Ranking of the reasons for implementing PPP projects

As in Li's questionnaire, a total of nine reasons for implementing PPP projects were rated by the respondents. The top three reasons ranked in Hong Kong included:

(1) Private incentive;

(2) Economic development pressure demanding more facilities; and

(3) High quality of service required.

The top reason for implementing PPP projects ranked by respondents from Hong Kong was 'Private incentive'. Obviously practitioners round the world can foresee the advantages of involving the private sector into conducting public works projects. The private sector can add value to these projects in many ways such as financially, via expertise, innovation, risk sharing and above all motivation. This finding has indicated that the Hong Kong respondents felt that the main reason for implementing public works projects by PPP is to acquire the added value from the private sector. In Australia and the United Kingdom this reason for implementing PPP projects was ranked lower at fourth and ninth place respectively, indicating that those respondents did not feel so strongly to involve the private sector for their added value.

Ranked second by respondents in Hong Kong, Australia and the United Kingdom was 'Economic development pressure demanding more facilities'. The similar ranking pattern across the three survey groups represents that the importance of this reason for implementing PPP projects is applicable irrespective of geographical differences. Hence all survey respondents felt that PPP projects are implemented due to economic pressure to provide more public facilities. The similar ranking pattern could also be a reflection of the real life situation that the survey respondents have observed. In Hong Kong particularly there has been a growing phase of rapid infrastructure development, which the government has opted to use the PPP scheme. These projects include the Cross-delta bridge linking Hong Kong, Zhuhai and Macau (Lam, 2008). The idea for this bridge was first proposed 25 years ago. It will span 29.6 km and shorten the normally one hour journey to approximately 15 minutes. Another recent project is the Shatin to Central rail

link and the Kwun Tong rail extension. The new metro line will consist of nine stations. Construction will start in 2010 and the two phases of the line will be completed by 2015 and 2019 (Information Services Department, 2008).

The third reason for implementing PPP projects ranked by respondents from Hong Kong was 'High quality of service required'. Being an international city, maintaining high quality in services is important. This feeling was also reflected by the survey respondents, as they felt that this reason for implementing PPP projects. In Australia and the United Kingdom this reason for implementing PPP projects was ranked first and seventh respectively. The findings show that the Australians felt similarly but the British ranked this reason for implementing PPP projects much lower. Although so, the survey with the British respondents was conducted a few years ago, hence it is anticipated that with the increasing projects due to be carried out before the Olympics in 2012, the respondents might have a different view if this survey was conducted today.

In Australia, the respondents ranked 'Inefficiency because of public monopoly and lack of competition' third. Due to the size, complexity, challenges and long concession period of PPP projects, they tend to be limited to be conducted by only those very large private sector companies. These companies will normally possess sufficient finance, expertise and skills to implement PPP projects. Therefore for those who are not involved with the PPP process may feel that public monopoly and lack of competition exists. This occurrence is often partially true but then only those capable parties will possess the power to participate with PPP projects.

Ranked first by British respondents was ‘Shortage of government funding’. One of the main reasons for the rise of PPP/PFI projects in the United Kingdom was due to financial resources from the private sector. The PPP/PFI method was first adopted at a time when the British government was struggling to provide for public facilities and services (Zhang, 2001). By involving the private sector the government was able to continue delivering public infrastructure. As a result a heavy emphasis on finance has always been associated to PPP/PFI projects especially in the early days of implementation. Along with other benefits as a result of involving the private sector, finance is often not the only element considered when delivering public projects these days though.

Third in the United Kingdom rank was ‘Avoid public investment restriction’. Similar to the reason discussed previously, this reason holds a strong emphasis on the financial element of the project. Again it must be considered that the survey conducted with British respondents was carried out a few years ago. It is likely that when the British government were still in a tight budgetary condition they would also be more likely to enforce more budgetary restrictions before approving projects. Hence it is unsurprising for this reason to be ranked highly by the British respondents.

The mean values of the reasons for implementing PPP projects as rated by Hong Kong respondents ranged from 2.79 to 3.56. This observation has reflected that the variation in their responses are relatively small, only 0.77 for Hong Kong. In Australia and the United Kingdom the means ranged from 2.18 to 3.91 and 2.57 to 3.90 respectively. The

corresponding differences in means were 1.73 and 1.33 respectively. The differences in means were much higher for the survey conducted in Australia and the United Kingdom compared to Hong Kong.

As the respondents were asked to rate the nine reasons for implementing PPP projects according to a Likert scale from 1 to 5 (1 = Least Important and 5 = Most Important), a value above '3' would represent that the reason for implementing PPP projects is of importance. Amongst the reasons for implementing PPP projects only three were ranked below '3' in the Hong Kong rank. These reasons for implementing PPP projects were 'Political pressure', 'Social pressure of poor public facilities' and 'Avoid public investment restriction' which scored 2.79, 2.88 and 2.97 respectively. For Australia and the United Kingdom, each had four reasons for implementing PPP projects rated below '3'. In Australia, two of these were the same as those for Hong Kong ('Political pressure' and 'Avoid public investment restriction' with scores of 2.45 and 2.18 respectively). The other two in Australia were 'Shortage of government funding' and 'Lack of business and profit generating skill in the public sector' which scored 2.64 and 2.82 respectively. On the other hand in the United Kingdom none were the same as those in Hong Kong but one was the same as Australia ('Lack of business and profit generating skill in the public sector' which scored 2.62). The other three reasons in the United Kingdom were 'Private incentive', 'Inefficiency because of public monopoly and lack of competition' and 'High quality of service required' which scored 2.57, 2.98 and 2.7 respectively.

The reason for implementing PPP projects 'Political pressure' was rated low by respondents in both Hong Kong and Australia. Hood and McGravey (2002) claimed that the PPP development would remain a major political issue. Relatively speaking, Hong Kong and Australia have less history of PPP implementation compared to the United Kingdom. Also, they faced less political pressure when the concept was first introduced, as the practice has been well documented in other developed countries (such as the United Kingdom) and the political influence of trade unions is minimal. Hence this reason for implementing PPP projects was not rated highly. Also rated lowly by respondents from Hong Kong and Australia was 'Avoid public investment restriction'. Again this reason for implementing PPP projects was not rated highly as both groups of survey respondents did not believe that the public were under heavy investment restrictions. Rated low by only the Hong Kong respondents was 'Social pressure of poor public facilities'. The Hong Kong respondents did not feel that the government has been under pressure from the society. Hence they rated this reason for implementing PPP projects lowly. This finding could imply that the respondents felt happy towards the current standard of public facilities in Hong Kong. Rated lowly by the Australian respondents only was 'Shortage of government funding'. Although financial drive may have once been the main reason for involving private sector participation, this is not the case anymore. In Australia, the state governments have noticed the benefits associated with implementing PPP projects and have developed a more revolutionary process. The state governments are capable of delivering these services themselves but instead they choose to involve the private sector to achieve added value from the private sector for particular public projects. Rated lowly by the Australian and British respondents was

‘Lack of business and profit generating skill in the public sector’, again the Australians and the British have a much longer history in implementing PPP projects hence their skills in this area are much more advanced. As a result the public sector has acquired sufficient experience and competency to deliver these projects well. Therefore the respondents felt that incapability of the public sector to deliver public projects was not the case. The British respondents rated ‘Private incentive’ lowly. This contradicts with the finding achieved from the Hong Kong respondents. The public sector of the United Kingdom is already well experienced at conducting PPP projects, but they realize their job is to deal with the administrative procedures rather than act as the developer. Also, rated lowly in the United Kingdom survey was ‘Inefficiency because of public monopoly and lack of competition’ and ‘High quality of service required’. Again the experience of the public sector implies that these can be achieved without involving the private sector.

5. Conclusions

This paper has formed a comparative study for the reasons to implement PPP projects between Hong Kong, Australia and the United Kingdom. It is anticipated that the findings can indicate to practitioners the main reasons for implementing PPP and as a result ensure a clearer understanding of the PPP projects across geographic boundaries. The findings have shown that in general those reasons ranked high by respondents from Hong Kong and Australia focused on improving the overall performance of public projects whereas those that were rated high by the British respondents focused on the financial aspect of the projects. Ranked in the top three by Hong Kong respondents was

‘Private incentive’; ‘Economic development pressure demanding more facilities’; and ‘High quality of service required’. In Australia and the United Kingdom both groups of respondents also ranked their second reason the same as Hong Kong. In addition, the Australians also ranked the third reason in Hong Kong first; and ‘Inefficiency because of public monopoly and lack of competition’ third. In the United Kingdom the first and third reasons ranked by the respondents was ‘Shortage of government funding’ and ‘Avoid public investment restriction’.

The reason ‘Private incentive’ was attractive due to the added value which could be applied to public works projects by the private sector. One of the main reasons to adopt PPP is that the public works project can benefit from the private sector’s expertise, innovation, motivation and experience. Similar for many governments around the world ‘Economic development pressure demanding more facilities’ is common. Even though governments such as Hong Kong are capable to finance their own projects, there are also other areas in society where they need to support. So by using money from the private sector, governments can utilize their resources much more effectively. In international cities particularly, ‘High quality of service required’ to maintain their status and competition is common. The size and complexity of PPP projects often limit only certain large private sector parties therefore ‘Inefficiency because of public monopoly and lack of competition’ is often seen. Many governments first started to implement PPP projects due to ‘Shortage of government funding’. Similarly, when the government is under tight budget controls implementing PPP projects could also ‘Avoid public investment restriction’.

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Table 1. Mean scores and rankings of the reasons for implementing PPP projects

	Hong Kong			Australia			United Kingdom (Li, 2003)		
	N	Mean	Rank	N	Mean	Rank	N	Mean	Rank
a. Economic development pressure demanding more facilities	33	3.48	2	11	3.64	2	61	3.34	2
b. Political pressure	33	2.79	9	11	2.45	8	61	3.24	4
c. Social pressure of poor public facilities	33	2.88	8	11	3.09	5	61	3.12	5
d. Private incentive	32	3.56	1	11	3.09	4	61	2.57	9
e. Shortage of government funding	33	3.24	6	11	2.64	7	61	3.9	1
f. Inefficiency because of public monopoly and lack of competition	33	3.33	4	11	3.09	3	61	2.98	6
g. High quality of service required	33	3.42	3	11	3.91	1	61	2.7	7
h. Avoid public investment restriction	33	2.97	7	11	2.18	9	61	3.31	3
i. Lack of business and profit generating skill in the public sector	32	3.31	5	11	2.82	6	61	2.62	8

* N = Number of survey respondents

Table 2. Results of Kendall's concordance analysis of the reasons for implementing PPP projects

	Hong Kong	Australia
Number of survey respondents	31	11
Kendall's coefficient of concordance (W)	0.076	0.239
Chi-square value	18.943	21.042
Critical value of Chi-square	15.510	15.510
Degree of freedom (df)	8	8
Asymptotic significance	0.015	0.007

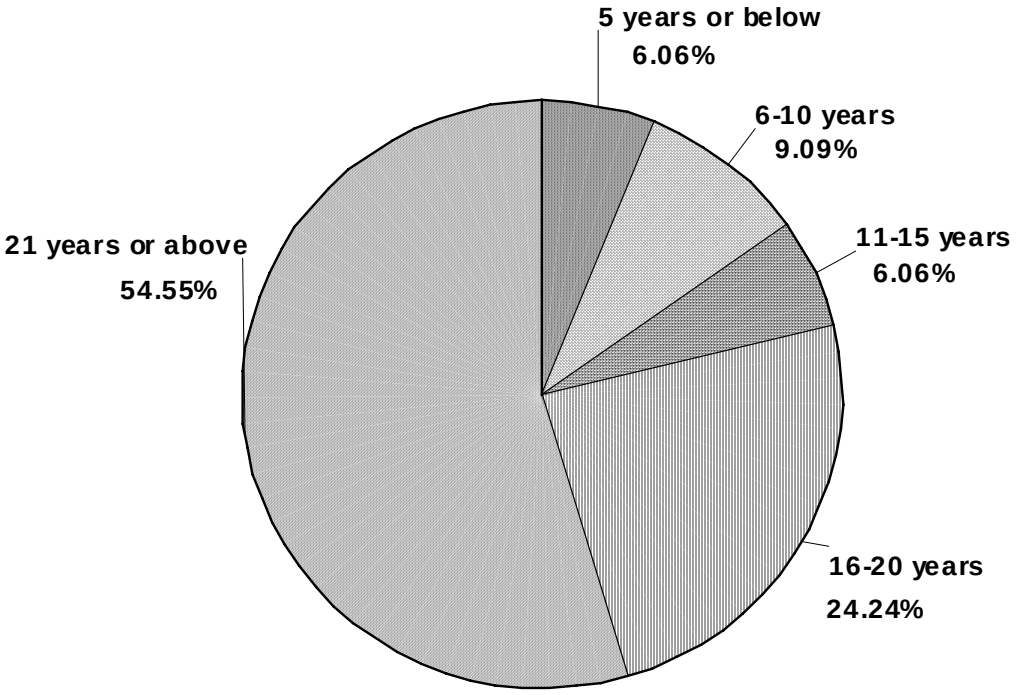

Figure 1. Pie chart showing the number of years of working experience in construction industry for the Hong Kong survey respondents

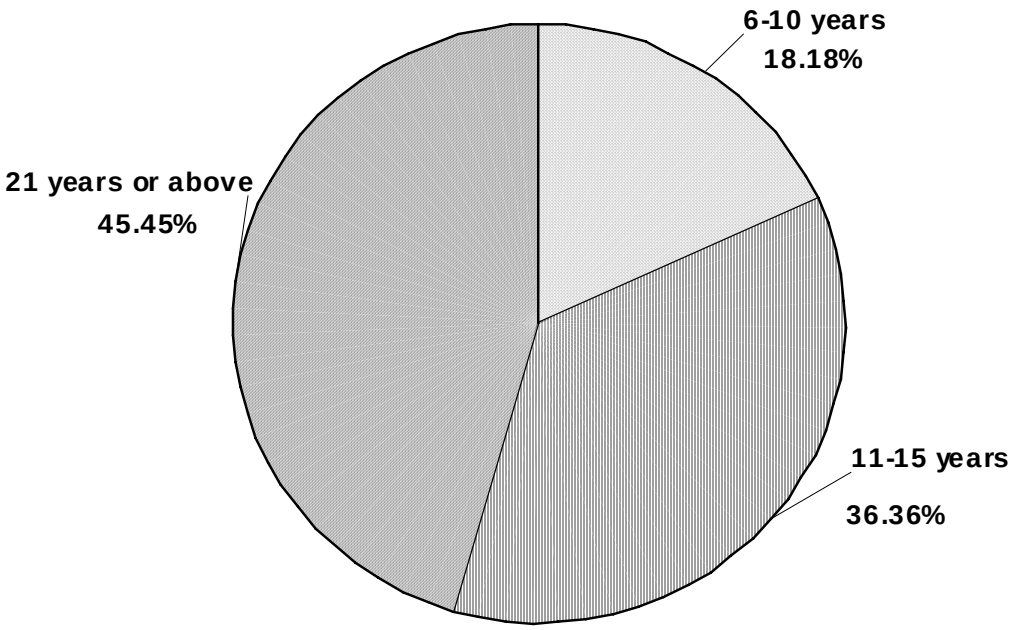

Figure 2. Pie chart showing the number of years of working experience in construction industry for the Australian survey respondents

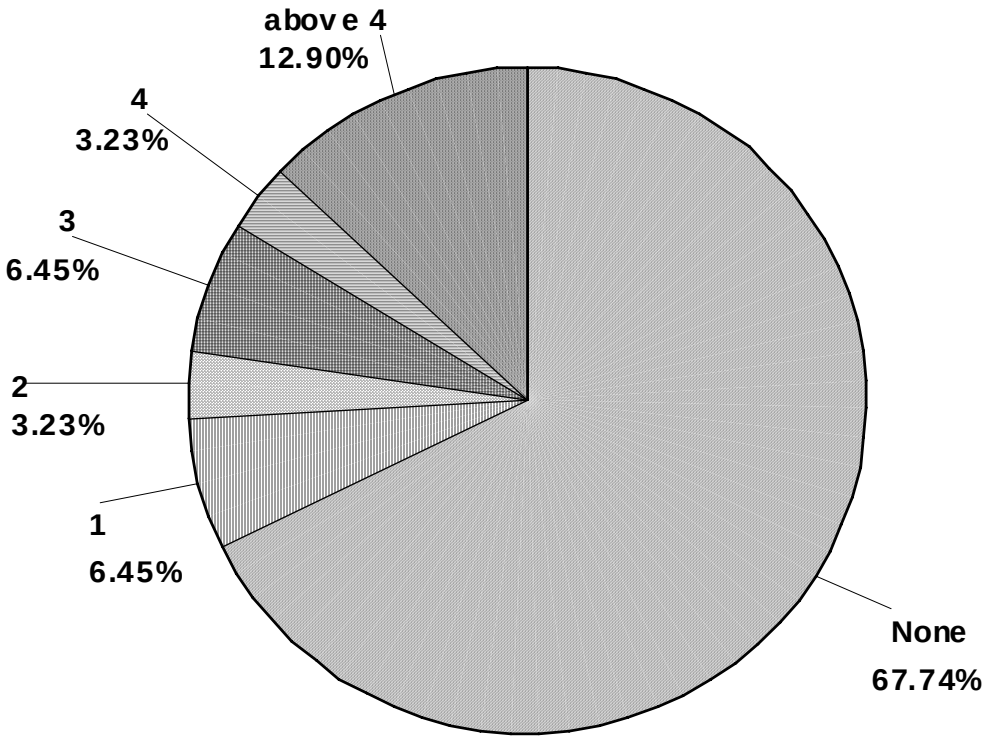

Figure 3. Pie chart showing the number of PPP projects the Hong Kong survey respondents have been involved with

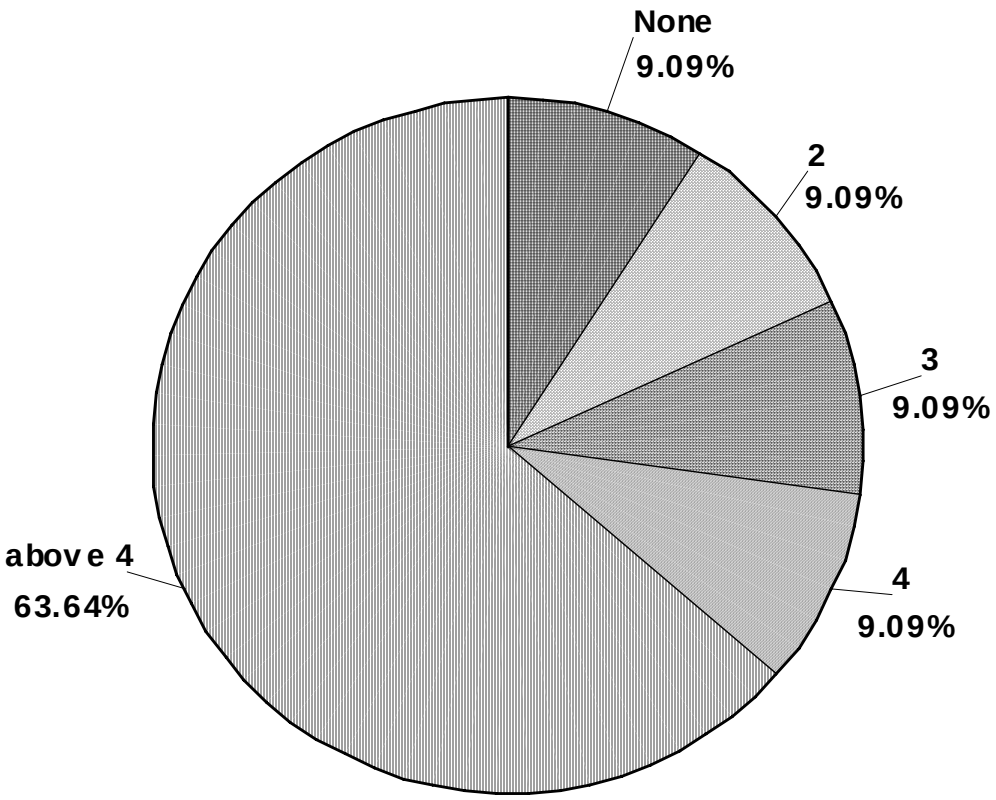

Figure 4. Pie chart showing the number of PPP projects the Australian survey respondents have been involved with